



PATENT ABSTRACTS OF JAPAN

(11) Publication number: 58174718 A

(43) Date of publication of application: 13.10.1983

(51) Int. Cl. F16C 33/52
F16C 33/32(21) Application number: 57055339
(22) Date of filing: 05.04.1982(71) Applicant: ULVAC CORP
(72) Inventor: TAKEJI HIROSANE
MINAMI JIRO

(54) BALL-AND-ROLLER BEARING

COPYRIGHT: (C)1983,JPO&Jepio

(57) Abstract:

PURPOSE: To improve resistance to heavy load and resistance to high speed rotation and also extend time of endurance by forming, by means of ion plating, a material coat mainly composed of nitriding titanium on face of contact between a rolling body and races of a ball-and-roller bearing used in high vacuum atmosphere.

CONSTITUTION: Coats 15, 16, 17 made of nitriding titanium or material mainly composed of nitriding titanium are formed covering respective faces of contact between inner, outer races 11, 12 and a rolling body 13 by means of ion plating. From the above, the faces of contact become to be super rigid causing drop of coefficient of friction and can be made abrasion-resistant, therefore, not only resistance to heavy load and high-speed rotation is improved but also time of endurance can be extended.

